2nd Errata for: Eutrophication of Tenkiller Reservoir, Oklahoma and Effects on Water Quality and Fisheries

Expert Report of Dr. G.D. Cooke and Dr. E.B. Welch

for

State of Oklahoma

In

Case No. 05-CU-329-GKF-SAJ

State of Oklahoma v. Tyson Foods, et al.

(In the United States District Court for the Northern District of Oklahoma)

(Cooke 2nd Errata – September 26, 2008)

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Exhibit J

The Errata recently submitted by Dr. Wells (Second Errata for Water Quality Hydrodynamic Modeling of Tenkiller Reservoir, September 22, 2008) has some modified modeling results concerning the projected affect on Lake Tenkiller from (1) continued growth in the land application and (2) the cessation of land application of poultry waste in the Illinois River Watershed. However, these modified results have had only a minor effect on the conclusions in our Report as follows (pages and line are references to our Report):

(a) p. 2, second line from bottom: "If poultry waste disposal continues and grows at the current rate, the model projects TP increases leading to greater eutrophic states at LK-01 ~~and LK-02~~, **LK-02** and LK-03, and hypereutrophic ~~state~~ at ~~LK-03~~ and LK-04".

(b) p. 35, line 9 from bottom: "At the end of a 50 year period, the trophic states of LK-01 and LK-02 will become ~~meso-oligotrophic, whereas~~ LK-03 **will become mesotrophic** and LK-04 will ~~become~~**remain** ~~meso-eutrophic~~ hypereutrophic" (Wells Second Errata September 22, 2008).

(c) p. 35, line 2 from bottom: "The model (Wells Second Errata September 22, 2008) also predicts that trophic state at LK-01 ~~and~~, LK-02 **and LK-03** will become ~~highly~~ eutrophic (TP-TSI values of 60-~~65~~ **68**; Table 7 of this report for trophic state boundaries) by the end of the 50 year period if poultry waste disposal on the land of the watershed continues and grows at the current rate (Engel, 2008). Under that growth scenario, conditions ~~at LK-03 and~~ **at** LK-04 will become ~~very~~ **more** hypereutrophic (TP-TSI values of ~~70-80~~ **more than 90**). These TP-TSI values **and trophic states** were computed by using the projected percent increase **or decrease** in TP concentrations at the four reservoir stations at the end of the 50 year modeling period (see Tables ~~31~~ **29** and ~~32~~ **30**; Wells Second Errata September 22, 2008)".

(d) p. 49, line 9 from top: " A model simulating changes in Tenkiller trophic state over a 50 year period following cessation of poultry waste disposal on the watershed (Wells Second Errata September 22, 2008) indicated that stations LK-01 and LK-02 will become ~~meso-~~oligotrophic, ~~whereas~~ LK-03 **will become mesotrophic** and LK-04 will ~~improve to meso-eutrophic states~~ **remain hypereutrophic**".

(e) p.49, line 16 from top: "If poultry waste disposal on the watershed continues and grows at the current growth rate, the model predicts that LK-01, ~~and~~ LK-02 **and LK-03** will become ~~highly~~ eutrophic ~~and LK-03~~ and LK-04 will become ~~very~~ **more** hypereutrophic by the end of the 50 year period" (Wells Second Errata September 22, 2008).